

APPENDIX A

1 (Previously Presented). A method of dependency management in a component-based system comprising:

- defining a resource;
- recording an identifier for the resource;
- recording resource dependency relationships definitions for the resource;
- identifying the type of dependency for each dependency resource by identifying the dependency as one of a resource that is contained by an entity and a resource that is used by the entity;
- deploying the resource and the resource dependency relationships of the resource to a system including:
  - verifying the existence of all dependency relationship resources of the resource on the system during runtime;
  - transmitting a warning if any of the dependencies of the are unsatisfied;
  - creating an abstract resource based on a dependency relationship definition of the abstract resource if the abstract resource is not found on the system; and
  - ending deployment if any dependency relationship is unsatisfied and deployment can not be completed without dependency.

2 (Original). The method of claim 1 wherein defining a resource comprises storing a definition of a resource in a tool to be accessed by a service creation environment ("SCE"), a deployment tool and a service logic execution environment ("SLEE").

3 (Original). The method of claim 1 wherein recording an identifier to a resource comprises recording an identifier including resource identification, type identification and version.

4 (Original). The method of claim 3 wherein recording an identifier further comprises recording an identifier including scope of the resource.

5 (Original). The method of claim 1 wherein recording dependency information comprises recording associations between the resource identifier and resource identifiers for the dependency relationship resources.

6 (Original). The method of claim 1 wherein recording dependency information comprises automatically recording dependency information.

7 (Original). The method of claim 1 wherein recording dependency information comprises manually recording dependency information through one of: software coding and configuration.

8 (Original). The method of claim 1 wherein recording resource dependency definitions comprises defining dependencies for the resource.

9 (Canceled).

10 (Previously Presented). A method of dependency management in a component-based system comprising:  
defining a resource;  
recording an identifier for the resource;  
recording resource dependency relationships definitions for the resource, wherein recording resource dependency definitions comprises identifying type of dependency for each dependency resource, wherein identifying the type of dependency comprises identifying the dependency as one of a resource that is contained by an entity and a resource that is used by the entity, wherein a resource that is contained by the entity is also used by the entity;

deploying the resource and the resource dependency  
relationships of the resource to a system including:  
    verifying the existence of all dependency relationship  
resources of the resource on the system;  
    transmitting a warning if any of the dependencies of  
the are unsatisfied;  
    creating an abstract resource based on a dependency  
relationship definition of the abstract resource if the abstract  
resource is not found on the system; and  
ending deployment if any dependency relationship is unsatisfied  
and deployment can not be completed without dependency.

11 (Previously Presented). The method of claim 10 wherein a  
resource can be deployed without satisfying a dependency  
relationship if the dependency resource is a uses type  
dependency.

12 (Previously Presented). The method of claim 10 wherein  
identifying the dependency type comprises identifying the  
dependency type according to the rules:

    if entity A uses resource B and resource B uses resource C,  
then A contains C;

    if A contains B and B contains C, then A contains C;

if A uses B and B contains C, then A uses C; and

if A contains B and B uses C, then A uses C.

13 (Original). The method of claim 1 wherein deploying the resource comprises using a deployment tool to deploy the resource wherein the deployment tool transmits information regarding dependency relationships to a resource management infrastructure.

14 (Original). The method of claim 1 wherein recording resource dependency relationships definitions for the resource comprises recording dependency relationships to at least one resource pool, the resource pool including a set of homogenous resources used interchangeably on a dynamic basis and allocated to dependent objects as needed.

15 (Original). The method of claim 1 further comprising creating a relationship between the resource and a resource pool manager if the resource will be used interchangeably with other resources in a resource pool, wherein the resource pool manager acts as a proxy for the pooled resources and handles dependency relationships on behalf of the pooled resources.

16 (Previously Presented). A system for dependency management in a component-based system comprising:

- means for defining a resource;
- means for recording an identifier for the resource;
- means for recording resource dependency relationships definitions for the resource;
- means for identifying the type of dependency for each dependency resource by identifying the dependency as one of a resource that is contained by an entity and a resource that is used by the entity;
- means for deploying the resource and the resource dependency relationships of the resource to a system including:
  - means for verifying the existence of all dependency relationship resources of the resource on the system during runtime;
  - means for transmitting a warning if any of the dependencies of the are unsatisfied;
  - means for creating an abstract resource based on a dependency relationship definition of the abstract resource if the abstract resource is not found on the system; and
  - means for ending deployment if any dependency relationship is unsatisfied and deployment can not be completed without dependency.

17 (Original). The system of claim 16 wherein the means for defining a resource comprises means for storing a definition of a resource in a tool to be accessed by a service creation environment ("SCE"), a deployment tool and a service logic execution environment ("SLEE").

18 (Original). The system of claim 16 wherein the means for recording an identifier to a resource comprises means for recording an identifier including resource identification, type identification and version.

19 (Previously Presented). The system of claim 18 wherein the means for recording an identifier further comprises means for recording an identifier including a scope of the resource.

20 (Original). The system of claim 16 wherein the means for recording dependency information comprises means for recording associations between the resource identifier and resource identifiers for the dependency relationship resources.

21 (Original). The system of claim 16 wherein the means for recording dependency information comprises means for

automatically recording dependency information.

22 (Original). The system of claim 16 wherein the means for recording dependency information comprises means for manually recording dependency information through one of: software coding and configuration.

23 (Original). The system of claim 16 wherein the means for recording resource dependency definitions comprises means for defining dependencies for the resource.

24 (Original). The system of claim 16 wherein the means for recording resource dependency definitions comprises means for identifying type of dependency for each dependency resource.

25 (Previously Presented). A system for dependency management in a component-based system comprising:

means for defining a resource;

means for recording an identifier for the resource;

means for recording resource dependency relationships definitions for the resource, wherein the means for recording resource dependency definitions comprises means for identifying type of dependency for each dependency resource wherein the



means for identifying the type of dependency comprises means for identifying the dependency as one of a resource that is contained by an entity and a resource that is used by the entity, wherein a resource that is contained by the entity is also used by the entity;

means for deploying the resource and the resource dependency relationships of the resource to a system including:

means for verifying the existence of all dependency relationship resources of the resource on the system;

means for transmitting a warning if any of the dependencies of the are unsatisfied;

means for creating an abstract resource based on a dependency relationship definition of the abstract resource if the abstract resource is not found on the system; and

means for ending deployment if any dependency relationship is unsatisfied and deployment can not be completed without dependency.

26 (Original). The system of claim 25 wherein a resource can be deployed without satisfying a dependency relationship if the dependency resource is a uses type dependency.

27 (Previously Presented). The system of claim 25 wherein the

means for identifying the dependency type comprises means for identifying the dependency type according to the rules:

if entity A uses resource B and resource B uses resource C,  
then A contains C;

if A contains B and B contains C, then A contains C;

if A uses B and B contains C, then A uses C; and

if A contains B and B uses C, then A uses C.

28 (Original). The system of claim 16 wherein the means for deploying the resource comprises means for using a deployment tool to deploy the resource wherein the deployment tool transmits information regarding dependency relationships to a resource management infrastructure.

29 (Original). The system of claim 16 wherein the means for recording resource dependency relationships definitions for the resource comprises means for recording dependency relationships to at least one resource pool, the resource pool including a set of homogenous resources used interchangeably on a dynamic basis and allocated to dependent objects as needed.

30 (Original). The system of claim 16 further comprising means for creating a relationship between the resource and a resource

pool manager if the resource will be used interchangeably with other resources in a resource pool, wherein the resource pool manager acts as a proxy for the pooled resources and handles dependency relationships on behalf of the pooled resources.

31 (Canceled).

32 (Canceled).

33 (Original).

34 (Original).

35 (Original).

36 (Canceled).

37 (Canceled).

38 (Canceled).

39 (Canceled).

40 (Canceled).

41 (Canceled).

42 (Canceled).

43 (Canceled).

44 (Canceled).

45 (Previously Presented). A computer processor-based system,  
the computer processor-based storing computer readable code  
executable to perform a method for managing a component-based  
system comprising:

defining a resource;

recording an identifier for the resource;

recording resource dependency relationships definitions for  
the resource;

identifying the type of dependency for each dependency  
resource by identifying the dependency as one of a resource that  
is contained by an entity and a resource that is used by the  
entity;

deploying the resource and the resource dependency

relationships of the resource to a system including.

verifying the existence of all dependency relationship  
resources of the resource on the system during runtime;

transmitting a warning if any of the dependencies of  
the are unsatisfied;

creating an abstract resource based on a dependency  
relationship definition of the abstract resource if the abstract  
resource is not found on the system; and  
ending deployment if any dependency relationship is unsatisfied  
and deployment can not be completed without dependency.

46 (Canceled).

47 (Canceled).